

## **ABSTRACT**

A system and method to compensate for changes in the frequency response of a microphone caused by factors interfering with the receipt of acoustic sound in the microphone. The system includes at least a microphone and a signal processor. The signal processor is operational to process at least one feedback frequency response from the microphone to generate at least one test parameter. The signal processor uses the at least one test parameter to determine at least one operational characteristic of the microphone. The feedback frequency response is generated by the microphone in response to acoustic feedback. The acoustic feedback is generated by actuation of a transducer in response to at least one test signal that is provided to the transducer. The signal processor uses the at least one test parameter to process acoustic frequency responses from the microphone to compensate for changes in the acoustic frequency responses of the microphone.